Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

78

VOL. 13 No. 31

August 2, 1963

U. S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY
AUG 1 3 1963
CURRENT SERIAL RECORDS

Cooperative ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION

AGRICULTURAL RESEARCH SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Survey and Detection Operations
Plant Pest Control Division
Agricultural Research Service
United States Department of Agriculture
Washington 25, D. C.

Volume 13 August 2, 1963 Number 31

COOPERATIVE ECONOMIC INSECT REPORT

DETECTION

An APHID (Microparsus olivei) collected in Pennsylvania for first time. (p. 882).

SPECIAL REPORTS

Status of the Screw-worm in the Southwest. (pp. 882-883).

Estimated Losses and Production Costs Attributed to Insects and Related Arthropods Attacking Hay Crops, Soybeans, Corn, Wheat and Alfalfa in Illinois in 1962. (pp. 885-893).

Estimated Losses and Production Costs Attributed to Insects and Related Arthropods Attacking Soybeans in Arkansas in 1962. (p. 894).

Interceptions of Special Interest at U.S. Ports of Entry. (pp. 895-896).

Insects Now Known to Occur in the United States (a fruit-tree spider mite (Tetranychus viennensis Zacher)). (p. 897).

****

Reports in this issue are for week ending July 26 unless otherwise indicated.

CEREAL AND FORAGE INSECTS

EUROPEAN CORN BORER (Ostrinia nubilalis) - NEW JERSEY - Second-generation moths appearing in light traps. (Ins.-Dis. Newsltr., July 23). IOWA - Between broods. Moths of second generation flying in southern two-thirds of State and eggs being laid in whorl and early tassel stages. Some larvae and pupae of first generation remain present in all areas. (Iowa Ins. Inf., July 22).

WESTERN CORN ROOTWORM (Diabrotica virgifera) - IOWA - Adults abundant in western area. (Iowa Ins. Inf., July 22).

A STRIPED BLISTER BEETLE (Epicauta sp.) - IOWA - Severely attacking soybeans and corn in Linn County. (Iowa Ins. Inf., July 22).

LEAFHOPPERS - NEW YORK - Building up on alfalfa in Livingston County. (N. Y. Wkly. Rpt., July 22). NEW JERSEY - High numbers of Empoasca fabae present in some fields of alfalfa. (Ins.-Dis. Newsltr., July 23).

LYGUS BUGS (Lygus spp.) - UTAH - Very numerous on alfalfa intended for seed in Erda area, Tooele County. Approximately 90 percent L. elisus. (Knowlton).

GARDEN SYMPHYLAN (Scutigerella immaculata) - IOWA - Infesting field of soybeans in western Ringgold County. This brings to 11 the number of counties in which pest is causing economic loss. (Iowa Ins. Inf., July 22).

WESTERN HARVESTER ANT (Pogonomyrmex occidentalis) - UTAH - Keeping large areas of range and farm lands bare in Box Elder, Cache and Tooele Counties. Some controls applied locally. (Knowlton).

GRASSHOPPERS - IOWA - Abundant in scattered areas of southern half of State. (Iowa Ins. Inf., July 22). UTAH - Grasshoppers, largely Melanoplus bivittatus and M. sanguinipes, moving from range and vacant lots into many home gardens at Tooele, Tooele County. (Knowlton).

FRUIT INSECTS

APPLE MAGGOT (Rhagoletis pomonella) - NEW YORK - Emergence maintained level of 200-300 per day since July 6 in eastern area; female-male ratios mostly above 1 : 1. Threat continues, protection urged. (N. Y. Wkly. Rpt., July 22). NEW JERSEY - Adults continue emergence in orchard at Cranbury; maggot protection required in central and northern counties. (Ins.-Dis. Newsltr., July 23).

ORCHARD MITES - MISSOURI - Mixed populations of Tetranychus telarius and Panonychus ulmi present in all areas of State but vary greatly. Spider mites will probably continue as major problem in both apple and peach orchards until fall rains. (Wkly. Rpt. Fr. Grs., July 24).

BLUEBERRY MAGGOT (Rhagoletis pomonella) - NEW JERSEY - Maggots now very noticeable in untreated blueberry areas; some shipments of fruit rejected because of too excessive infestation due to poor control program. Adults still very abundant. (Ins.-Dis. Newsltr., July 23).

TRUCK CROP INSECTS

MEXICAN BEAN BEETLE (Epilachna varivestis) - NEW YORK - Very scarce this year; not expected to be problem for bean growers. (N. Y. Wkly. Rpt., July 22). UTAH - Damaging several home gardens at Tooele. (Knowlton).

POTATO LEAFHOPPER (Empoasca fabae) - NEW YORK - Building up on beans; controls needed. (N. Y. Wkly. Rpt., July 22).

GREEN PEACH APHID (Myzus persicae) - UTAH - Moderately numerous on sugar beets and potatoes at southwestern Granger, Salt Lake County. (Knowlton).

COTTON INSECTS

BOLL WEEVIL (Anthonomus grandis) - SOUTH CAROLINA - Infestations vary greatly; punctured squares above 25 percent in untreated fields in one-third of counties reporting. Dorchester, Berkeley, Jasper and Lee Counties report 45-64 percent of squares punctured. Another one-third of counties report less than 15 percent of squares punctured. Normal buildup occurring. Migration expected to begin this week in southeast and about August 1 in Piedmont. (Cott. Ltr., July 22). First-generation weevils increasing more rapidly in Florence area, but infestations still relatively light. (Taft et al., July 24). GEORGIA - Percent punctured squares 1-10 in 56 percent of fields, 11-25 in 29 percent, 26-50 in 9 percent, over 50 in 3 percent during period July 18-24. (Jordan). ARKANSAS - Weevil activity increasing in southwest, but below normal statewide. Increased activity expected next two weeks. (Wkly. Cott. Ins. Rpt., July 19). LOUISIANA - Infestations generally light in Tallulah area, but some damage occurring where showers interfering with control schedules. (Smith et al.). MISSISSIPPI - Percent punctured squares ranged 0.25-77 (averaged 15.5) in 15 of 27 fields checked in delta area. Population increasing in infested fields. (Pfrimmer et al.). TEXAS - Nearing economic levels in some older cotton in northwest. (Tex. Coop. Rpt., July 19).

BOLLWORMS (Heliothis spp., et al.). - SOUTH CAROLINA - Larvae per 100 terminals July 18-24 were 1-3 in 45 percent of fields, 4-10 in 25 percent of fields, 11-25 in 5 percent of fields and over 25 in only 1 percent of fields. (Jordan). ARKANSAS - Third-generation moth emergence heavy in some areas, especially in sections of southeast and southwest. Egg counts increased rapidly. (Wkly. Cott. Ins. Rpt., July 19). LOUISIANA - Of primary importance in Tallulah area at present. Egg and larval terminal counts much higher than in previous week. Some boll damage occurring. (Smith et al.). MISSISSIPPI - Percent injured squares ranged 0.2-3.25 (averaged 1.44) in 20 of 27 fields checked in delta area. Moderate moth flight still underway. Egg deposition appears to be primarily down in plant. First and second-stage larvae found in white blooms in several fields. (Pfrimmer et al.). TEXAS - Continues most damaging cotton insect over State. (Tex. Coop. Rpt., July 19).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - Much of cotton in infested areas of Matagorda County nearing maturity, but considerable damage still being inflicted. In Cayonose area of Pecos County, infestation still persists and controls being continued. (Tex. Coop. Rpt., July 19).

GARDEN WEBWORM (Loxostege similalis) - TEXAS - Generally distributed over northwest and south plains areas; some heavy infestations required controls in these sections. (Tex. Coop. Rpt., July 19).

SALT-MARSH CATERPILLAR (Estigmene acrea) - CALIFORNIA - Larvae found in many Fresno County fields; also in Kings County, some serious infestations reported. (Leigh, July 19).

COTTON LEAFWORM (Alabama argillacea) - TEXAS - Few locally heavy infestations present in areas of Victoria and Starr Counties, but indications do not point to outbreaks in other areas at present. (Tex. Coop. Rpt., July 19).

BEET ARMYWORM (Spodoptera exigua) - GEORGIA - Infestations found in 10 percent of cotton fields checked in Decatur, Terrell, Sumter, Calhoun, Early, Clay, Miller, Stewart, Colquitt and Grady Counties July 18-24. Light in all but very few fields. Infestations appear to be decreasing. Another generation possible. (Jordan). TEXAS - General, light infestations present over wide areas of northwest constitute potential threat if conditions remain favorable for population increases. (Tex. Coop. Rpt., July 19).

LYGUS BUGS (Lygus spp.) - CALIFORNIA - Counts reaching economic levels in many fields throughout San Joaquin Valley. Reinfestation occurring in some fields already treated. Fields should be checked closely and controls applied where economic levels found. (Burton et al., July 22).

COTTON FLEAHOPPER (Psallus seriatus) - TEXAS - Economic populations present in many areas of northwest and south plains sections where much cotton is in critical fruiting stages. Controls being applied in many instances. (Tex. Coop. Rpt., July 19).

SPIDER MITES - CALIFORNIA - Tetranychus telarius becoming severe in Kerman area of Fresno County; ranged 50-100 per leaf in alkali soil areas. Generally light in Clovis area with occasional fields requiring treatment. Increasing in Mendota, Firebaugh, Tranquillity and San Joaquin areas with some fields being treated. (Ferris, July 19). Increasing in western part of county where controls not applied. T. pacificus appears dominant. (Leigh, July 19). Mites appear to be less numerous in Kern County, but cotton has grown rapidly and masked some injury. T. atlanticus continues abundant on lower portion of plants. (Black, July 19). In Shafter area, T. telarius apparently dominant species and populations increasing. (Leigh, July 19).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

AN APHID (Microparsus olivei) - PENNSYLVANIA - Very abundant on Desmodium canadensis in Centre County. No parasites present. Other aphids in area heavily parasitized and attacked by predators. Det. by J. O. Pepper. This is a new State record. (Pepper).

BAGWORM (Thyridopteryx ephemeraeformis) - NEW JERSEY - Becoming numerous in several areas. (Ins.-Dis. Newsltr., July 23).

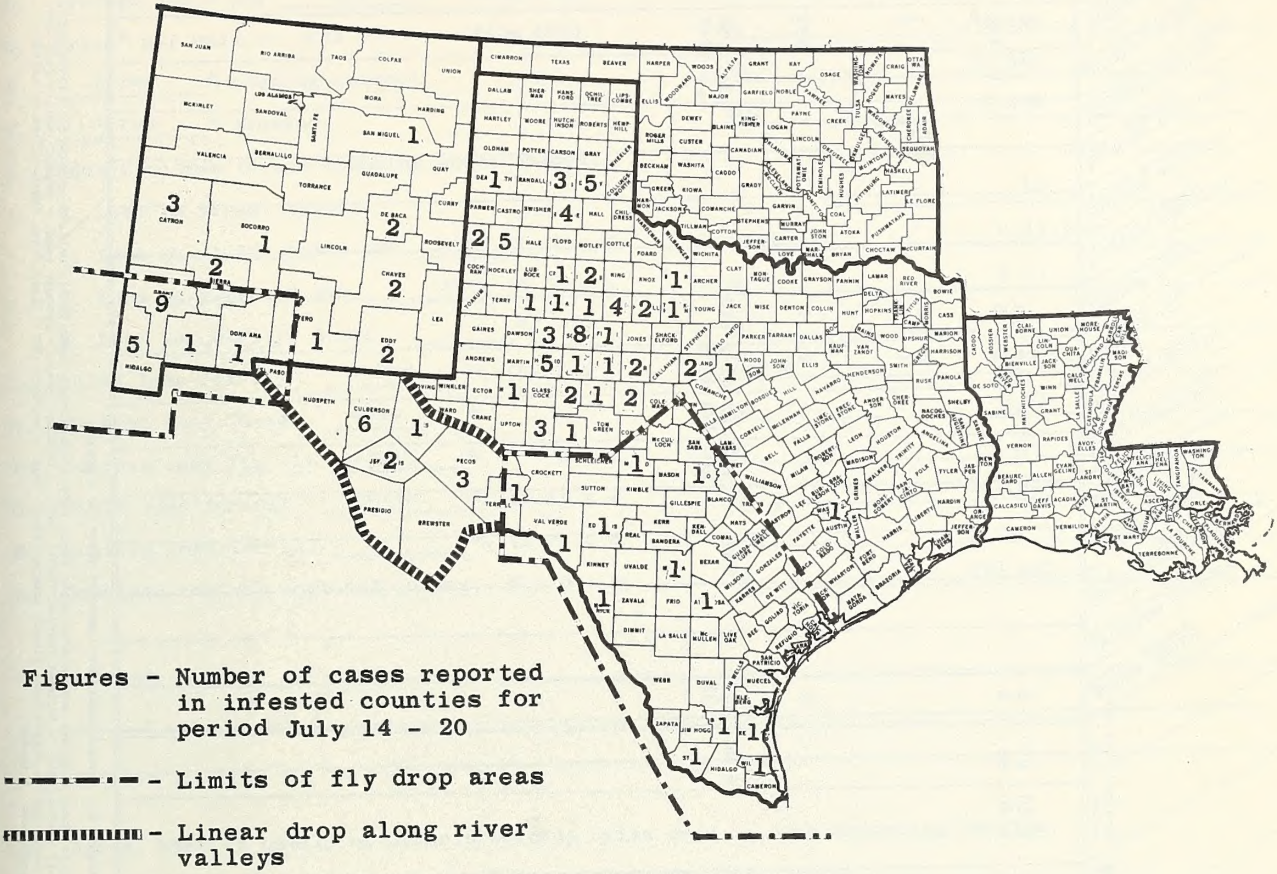
INSECTS AFFECTING MAN AND ANIMALS

STATUS OF THE SCREW-WORM (Cochliomyia hominivorax) IN THE SOUTHWEST [1]

During the period July 14 - 20, a total of 92 infestations was reported from TEXAS and 30 from NEW MEXICO. Specimens were reported from 46 counties in Texas and 12 counties in New Mexico. Screw-worm was reported for the first time this year from Deaf Smith and Erath Counties, Texas, and San Miguel County, New Mexico. A total of 119,488,250 sterile flies was released during the period July 14 - 20. (Anim. Dis. Erad. Div.).

---

[1] See map on following page.


Figures - Number of cases reported in infested counties for period July 14 - 20
-·-·-·- - Limits of fly drop areas
▮▮▮▮▮▮▮▮ - Linear drop along river valleys

LIGHT TRAP COLLECTIONS

	Temperature °F	Precipitation	Type of trap *	Agrotis ipsilon (black cutworm)	Carpocapsa pomonella (codling moth)	Chorizagrotis auxiliaris (army cutworm)	Estigmene acrea (salt-marsh caterpillar)	Faronta diffusa (wheat head armyworm)	Feltia subterranea (granulate cutworm)	Heliothis virescens (tobacco budworm)	Heliothis zea (bollworm, corn earworm)	Laphygma frugiperda (fall armyworm)	Loxostege commixtalis (alfalfa webworm)	Loxostege similalis (garden webworm)	Loxostege sticticalis (beet webworm)	Ostrinia nubilalis (European corn borer)	Peridroma saucia (variegated cutworm)	Prodenia ornithogalli (yellow-striped armyworm)	Protoparce quinquemaculata (tomato hornworm)	Protoparce sexta (tobacco hornworm)	Pseudaletia unipuncta (armyworm)	Spodoptera exigua (beet armyworm)	Trichoplusia ni (cabbage looper)	Major crop **
MISSISSIPPI																								
Stoneville 7/9-15	67-95	1.46	MV	2					11	3	179	10					1	82		13	336		46	
Stoneville 7/9-15	67-95	1.46	BL	8						2	372	5					9	176		13	376		22	
NEW JERSEY																								
Aura (rural) 7/19,22											2					1		1			28			
Evesboro 7/19,22											1					7		3			77			
Seabrook 7/19,22																4					60			
SOUTH CAROLINA																								
Clemson 7/13-19				1					17		1	1					4	392			69			
TEXAS																								
Brownsville 7/19-23			6 BL	432			329		972	383	6242	875					64	168	20	317			4632	
Waco 7/20-26	78-100			82					210	404	4279						17	342			8		8764	

* BL = blacklight; I = incandescent; MV = mercury vapor ; O = other

** alf. = alfalfa; beet = garden beet and/or sugar beet; cole = cole crops (crucifers); cott. = cotton; FC = field corn; grain = small grains; leg. = legumes (unspecified); lett. = lettuce; pean. = peanut; pepp. = pepper; pot. = potatoes; SC = sweet corn; sol. = solanaceous plants (unspecified); soy. = soybean; TC = truck crops (unspecified or mixed); tob. = tobacco; tom. = tomato.

ESTIMATED LOSSES AND PRODUCTION COSTS ATTRIBUTED TO INSECTS AND RELATED ARTHROPODS

ATTACKING Hay crops (Commodity) IN Illinois (State or District) DURING 1962 (Year)

A. Pest or pest complex Meadow spittlebug (Philaenus spumarius)

B. Number of acres[a] produced (From CRS) No. 2,047,000

C. Average yield per acre[a] (From CRS) Units/ 1.07 ton

D. Price[b] per unit (ton)[c] (From CRS) $/ 20.50

E. Acres[a] needing control No. 59,363

F. Acres[a] treated No. 9,356

G. Reduction due to not treating where needed:

H. Loss in yield, percent % 13

I. Loss in yield, units per acre[a], C x H Units/ 0.14 ton

J. Loss in yield, $ per acre[a], D x I $/ 2.87

K. Loss in quality, $ per ____[a] $/

L. Yield loss for all acres[a], (E-F) x I Units 7,001 ton

M. Control cost, $ per acre[a] $/ 3.25

N. Control cost for all acres[a], F x M $ 30,407

O. Yield loss for all acres[a], (E-F) x J $ 143,520

P. Quality loss for all ____[a], (E-F) x K $

Q. Combined control cost and losses, N + O + P $ 173,927

Comment:

a. Acres, head of cattle or other producing units used by Crop Reporting Service.

b. Season average price per unit as given by CRS (describe basis).

c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by Clarence E. White

Date 2-5-63

ESTIMATED LOSSES AND PRODUCTION COSTS ATTRIBUTED TO INSECTS AND RELATED ARTHROPODS

ATTACKING Hay crops (Commodity) IN Illinois (State or District) DURING 1962 (Year)

A. Pest or pest complex Clover leaf weevil (*Hypera punctata*)

B. Number of acres[a] produced (From CRS) No. 2,047,000

C. Average yield per acre[a] (From CRS) Units/ 1.07 ton

D. Price[b] per unit (ton)[c] (From CRS) $/ 20.50

E. Acres[a] needing control No. 112,585

F. Acres[a] treated No. 8,154

G. Reduction due to not treating where needed:

H. Loss in yield, percent % 15

I. Loss in yield, units per acre[a], C x H Units/ 0.16 ton

J. Loss in yield, $ per acre[a], D x I $/ 3.28

K. Loss in quality, $ per ________[a] $/

L. Yield loss for all acres[a], (E-F) x I Units 16,709 ton

M. Control cost, $ per acre[a] $/ 3.25

N. Control cost for all acres[a], F x M $ 26,500

O. Yield loss for all acres[a], (E-F) x J $ 342,533

P. Quality loss for all ________[a], (E-F) x K $

Q. Combined control cost and losses, N + O + P $ 369,033

Comment:

a. Acres, head of cattle or other producing units used by Crop Reporting Service.

b. Season average price per unit as given by CRS (describe basis).

c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by Clarence E. White

Date 2-4-63

ESTIMATED LOSSES AND PRODUCTION COSTS ATTRIBUTED TO INSECTS AND RELATED ARTHROPODS

ATTACKING Hay crops (Commodity) IN Illinois (State or District) DURING 1962 (Year)

A.	Pest or pest complex	Pea aphid (*Acyrthosiphon pisum*)
B.	Number of acres[a] produced (From CRS)	No. 2,047,000
C.	Average yield per acre[a] (From CRS)	Units/ 1.07 ton
D.	Price[b] per unit (ton)[c] (From CRS)	$/ 20.50
E.	Acres[a] needing control	No. 16,376
F.	Acres[a] treated	No. 11,585
G.	Reduction due to not treating where needed:	
	H. Loss in yield, percent	% 20
	I. Loss in yield, units per acre[a], C x H	Units/ 0.21 ton
	J. Loss in yield, $ per acre[a], D x I	$/ 4.31
	K. Loss in quality, $ per ____[a]	$/
L.	Yield loss for all acres[a], (E-F) x I	Units 1,006 ton
M.	Control cost, $ per acre[a]	$/ 3.25
N.	Control cost for all acres[a], F x M	$ 37,651
O.	Yield loss for all acres[a], (E-F) x J	$ 20,649
P.	Quality loss for all ____[a], (E-F) x K	$
Q.	Combined control cost and losses, N + O + P	$ 58,300

Comment:

a. Acres, head of cattle or other producing units used by Crop Reporting Service.

b. Season average price per unit as given by CRS (describe basis).

c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by Clarence E. White

Date 1-22-63

ESTIMATED LOSSES AND PRODUCTION COSTS ATTRIBUTED TO INSECTS AND RELATED ARTHROPODS

ATTACKING Soybeans (Commodity) IN Illinois (State or District) DURING 1962 (Year)

A. Pest or pest complex Grasshoppers (Melanoplus spp.)

B. Number of acres[a] produced (From CRS) No. 5,575,000

C. Average yield per acre[a] (From CRS) Units/ 28.5 bu.

D. Price[b] per unit (bu.)[c] (From CRS) $/ 2.35

E. Acres[a] needing control No. 408,648

F. Acres[a] treated No. 372,197

G. Reduction due to not treating where needed:

H. Loss in yield, percent % 20

I. Loss in yield, units per acre[a], C x H Units/ 5.7 bu.

J. Loss in yield, $ per acre[a], D x I $/ 13.40

K. Loss in quality, $ per ______[a] $/

L. Yield loss for all acres[a], (E-F) x I Units 207,771 bu.

M. Control cost, $ per acre[a] $/ 2.25

N. Control cost for all acres[a], F x M $ 837,443

O. Yield loss for all acres[a], (E-F) x J $ 448,443

P. Quality loss for all ______[a], (E-F) x K $

Q. Combined control cost and losses, N + O + P $ 1,325,886

Comment:

a. Acres, head of cattle or other producing units used by Crop Reporting Service.

b. Season average price per unit as given by CRS (describe basis).

c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by Clarence E. White

Date 2-1-63

ESTIMATED LOSSES AND PRODUCTION COSTS ATTRIBUTED TO INSECTS AND RELATED ARTHROPODS

ATTACKING Hay crops (Commodity) IN Illinois (State or District) DURING 1962 (Year)

A.	Pest or pest complex	Grasshoppers (Melanoplus spp.)
B.	Number of acres[a] produced (From CRS)	No. 2,047,000
C.	Average yield per acre[a] (From CRS)	Units/ 1.07 ton
D.	Price[b] per unit (ton)[c] (From CRS)	$/ 20.50
E.	Acres[a] needing control	No. 1,023,500
F.	Acres[a] treated	No. 699,438
G.	Reduction due to not treating where needed:	
	H. Loss in yield, percent	% 16.36
	I. Loss in yield, units per acre[a], C x H	Units/ 0.18 ton
	J. Loss in yield, $ per acre[a], D x I	$/ 3.69
	K. Loss in quality, $ per acre[a]	$/ 2.52
L.	Yield loss for all acres[a], (E-F) x I	Units 58,331 ton
M.	Control cost, $ per acre[a]	$/ 3.25
N.	Control cost for all acres[a], F x M	$ 2,273,174
O.	Yield loss for all acres[a], (E-F) x J	$ 1,195,789
P.	Quality loss for all acres[a], (E-F) x K	$ 816,636
Q.	Combined control cost and losses, N + O + P	$ 4,285,599

Comment:

a. Acres, head of cattle or other producing units used by Crop Reporting Service.

b. Season average price per unit as given by CRS (describe basis).

c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by Clarence E. White

Date 1-22-63

ESTIMATED LOSSES AND PRODUCTION COSTS ATTRIBUTED TO INSECTS AND RELATED ARTHROPODS

ATTACKING Corn (Commodity) IN Illinois (State or District) DURING 1962 (Year)

A. Pest or pest complex Soil insects

B. Number of acres[a] produced (From CRS) No. 8,270,000

C. Average yield per acre[a] (From CRS) Units/ 83 bu.

D. Price[b] per unit (bu.)[c] (From CRS) $/ 1.06

E. Acres[a] needing control No. 5,449,103

F. Acres[a] treated No. 3,069,035

G. Reduction due to not treating where needed:

H. Loss in yield, percent % 10

I. Loss in yield, units per acre[a], C x H Units/ 8.3 bu.

J. Loss in yield, $ per acre[a], D x I $/ 8.80

K. Loss in quality, $ per ______[a] $/

L. Yield loss for all acres[a], (E-F) x I Units 19,754,564 bu.

M. Control cost, $ per acre[a] $/ 3.25

N. Control cost for all acres[a], F x M $ 9,974,363.75

O. Yield loss for all acres[a], (E-F) x J $ 20,944,598.40

P. Quality loss for all ______[a], (E-F) x K $

Q. Combined control cost and losses, N + O + P $ 30,918,962.15

Comment: In addition to the above, there were 51,897 acres replanted at $10/acre, equaling $518,970 and 172,081 acres were treated after the corn was up at $3.25/acre, equaling $559,263.25 loss due to cutworms. This gives a grand total due to soil insects of $31,997,195.40.

a. Acres, head of cattle or other producing units used by Crop Reporting Service.

b. Season average price per unit as given by CRS (describe basis).

c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by Clarence E. White

Date 1-16-63

ESTIMATED LOSSES AND PRODUCTION COSTS ATTRIBUTED TO INSECTS AND RELATED ARTHROPODS

ATTACKING Corn (Commodity) IN Illinois (State or District) DURING 1962 (Year)

A. Pest or pest complex Grasshoppers (*Melanoplus* spp.)

B. Number of acres[a] produced (From CRS) No. 8,270,000

C. Average yield per acre[a] (From CRS) Units/ 83 bu.

D. Price[b] per unit (bu.)[c] (From CRS) $/ 1.06

E. Acres[a] needing control No. 248,100

F. Acres[a] treated No. 235,128

G. Reduction due to not treating where needed:

H. Loss in yield, percent % 5

I. Loss in yield, units per acre[a], C x H Units/ 4.15 bu.

J. Loss in yield, $ per acre[a], D x I $/ 4.40

K. Loss in quality, $ per ___[a] $/

L. Yield loss for all acres[a], (E-F) x I Units 53,834 bu.

M. Control cost, $ per acre[a] $/ 2.25

N. Control cost for all acres[a], F x M $ 529,038

O. Yield loss for all acres[a], (E-F) x J $ 57,077

P. Quality loss for all ___[a], (E-F) x K $

Q. Combined control cost and losses, N + O + P $ 586,115

Comment:

a. Acres, head of cattle or other producing units used by Crop Reporting Service.

b. Season average price per unit as given by CRS (describe basis).

c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by Clarence E. White

Date 1-31-63

ESTIMATED LOSSES AND PRODUCTION COSTS ATTRIBUTED TO INSECTS AND RELATED ARTHROPODS

ATTACKING Wheat (Commodity) IN Illinois (State or District) DURING 1962 (Year)

A. Pest or pest complex Armyworm (*Pseudaletia unipuncta*)

B. Number of acres[a] produced (From CRS) No. 1,522,000

C. Average yield per acre[a] (From CRS) Units/ 32.5 bu.

D. Price[b] per unit (bu.)[c] (From CRS) $/ 2.05

E. Acres[a] needing control No. 30,440

F. Acres[a] treated No. 19,438

G. Reduction due to not treating where needed:

H. Loss in yield, percent % 10

I. Loss in yield, units per acre[a], C x H Units/ 3.25 bu.

J. Loss in yield, $ per acre[a], D x I $/ 6.66

K. Loss in quality, $ per ____[a] $/

L. Yield loss for all acres[a], (E-F) x I Units 35,757 bu.

M. Control cost, $ per acre[a] $/ 2.25

N. Control cost for all acres[a], F x M $ 43,735.50

O. Yield loss for all acres[a], (E-F) x J $ 73,273.32

P. Quality loss for all ____[a], (E-F) x K $

Q. Combined control cost and losses, N + O + P $ 117,008.82

Comment: In addition, there were 8,260 acres of oats, 5,618 acres of rye and barley, and 2,577 acres of grass treated at $2.25/acre, equaling $37,023.75. No figures are available to show acres needing treatment or yield losses on these crops.

a. Acres, head of cattle or other producing units used by Crop Reporting Service.

b. Season average price per unit as given by CRS (describe basis).

c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by Clarence E. White

Date 1-17-63

ESTIMATED LOSSES AND PRODUCTION COSTS ATTRIBUTED TO INSECTS AND RELATED ARTHROPODS

ATTACKING Alfalfa (Commodity) IN Illinois (State or District) DURING 1962 (Year)

A. Pest or pest complex	Potato leafhopper (Empoasca fabae)
B. Number of acres[a] produced (From CRS)	No. 1,065,000
C. Average yield per acre[a] (From CRS)	Units/ 1.28 ton
D. Price[b] per unit (ton)[c] (From CRS)	$/ 22.50
E. Acres[a] needing control	No. 24,741
F. Acres[a] treated	No. 12,294
G. Reduction due to not treating where needed:	
H. Loss in yield, percent	% 6.2
I. Loss in yield, units per acre[a], C x H	Units/ 0.08 ton
J. Loss in yield, $ per acre[a], D x I	$/ 1.80
K. Loss in quality, $ per acre[a]	$/ 5.63
L. Yield loss for all acres[a], (E-F) x I	Units 996 ton
M. Control cost, $ per acre[a]	$/ 3.25
N. Control cost for all acres[a], F x M	$ 39,949
O. Yield loss for all acres[a], (E-F) x J	$ 22,408
P. Quality loss for all acres[a], (E-F) x K	$ 70,088
Q. Combined control cost and losses, N + O + P	$ 132,445

Comment: Practically all damage was confined to an area in the West, Central and West-southwest districts of the State this year.

a. Acres, head of cattle or other producing units used by Crop Reporting Service.

b. Season average price per unit as given by CRS (describe basis).

c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by Clarence E. White

Date 2-6-63

ESTIMATED LOSSES AND PRODUCTION COSTS ATTRIBUTED TO INSECTS AND RELATED ARTHROPODS

ATTACKING Soybeans (Commodity) IN Arkansas (State or District) DURING 1962 (Year)

A. Pest or pest complex Corn earworm (*Heliothis zea*), green stink bug, (*Acrosternum hilare*), southern green stink bug (*Nezara viridula*)

B.	Number of acres[a] produced (From CRS)	No. 2,707,000
C.	Average yield per acres[a] (From CRS)	Units/ 21.5 bu.
D.	Price[b] per unit (bu.)[c] (From CRS)	$/ 2.35 season average
E.	Acres[a] needing control	No. 206,000
F.	Acres[a] treated	No. 201,605
G.	Reduction due to not treating where needed:	
H.	Loss in yield, percent	% 10
I.	Loss in yield, units per acre[a], C x H	Units/ 2.15 bu.
J.	Loss in yield, $ per acre[a], D x I	$/ 5.05
K.	Loss in quality, $ per acre[a]	$/ 0
L.	Yield loss for all acres[a], (E-F) x I	Units 9,449 bu.
M.	Control cost, $ per acre[a]	$/ 2.00
N.	Control cost for all acres[a], F x M	$ 403,210
O.	Yield loss for all acres[a], (E-F) x J	$ 22,194
P.	Quality loss for all acres[a], (E-F) x K	$ 0
Q.	Combined control cost and losses, N + O + P	$ 425,404

Comment: For a year or two processing mills in our trade area reduced the price paid for soybeans showing signs of stink bug feeding. Research showed that, under our conditions, no reduction in oil or protein content occurred.

a. Acres, head of cattle or other producing units used by Crop Reporting Service.

b. Season average price per unit as given by CRS (describe basis).

c. Bushels, boxes, tons or other marketing units used by CRS; show which in ( ).

Submitted by W. P. Boyer

Date 2-26-63

INTERCEPTIONS OF SPECIAL INTEREST AT U. S. PORTS OF ENTRY

Some important interceptions that were reported by the Plant Quarantine Division, ARS, USDA, on April 30, 1963, follow. These reports are based on identifications received from Federal taxonomists at the U. S. National Museum during the month, but do include any of special interest from recent months that were not previously reported.

CHINESE ROSE BEETLE (Adoretus sinicus (Burm.)) abundant on several hosts with flowers in baggage at Honolulu, Hawaii.

CITRUS BLACKFLY (Aleurocanthus woglumi Ashby) 14 times in cargo and baggage; 2 times at San Ysidro, California; 1 time at Nogales, Arizona; 1 time at El Paso, 6 times at Laredo and 3 times at Brownsville, Texas; and 1 time at Miami, Florida.

A FRUIT FLY (Anastrepha sp.) in broadbean (Vicia faba) in baggage at Miami, Florida. This is first Plant Quarantine Division record in the host.

A WEEVIL (Apion sp., probably carduorum Kirby) (a pest of artichoke in the Mediterranean area) in cargo at New York International Airport, New York.

LIGHT-BROWN APPLE MOTH (Austrotortrix postvittana (Wlk.)) (or near this Australian and New Zealand deciduous fruit pest) and other tortricid larval specimens near Tortrix excessana (Wlk.) (a needle-tying moth) in apple cargo at Honolulu, Hawaii.

MEDITERRANEAN FRUIT FLY (Ceratitis capitata (Wied.)) 8 times in baggage, mail, cargo and stores; 1 time at New York and 2 times at New York International Airport, New York; and 5 times at Honolulu, Hawaii.

A CRAMBID (Chilo sp.) (stem boring pest of rice in Asiatic region) in rice straw stores at Philadelphia, Pennsylvania.

YELLOW PEACH MOTH (Dichocrocis punctiferalis (Guen.)) (of the Orient and Australia) in Pinus sp. in baggage and cargo at Seattle, Washington.

A WEEVIL (Epicaerus sp., possibly cognatus Sharp) in potatoes in baggage at Eagle Pass, Texas.

A SUGAR-BEET CROWN BORER (Gnorimoschema ocellatella (Boyd)) (a Mediterranean beet pest) twice in stores at New York, New York.

A SCARAB (Heterochelus sp.) with Protea flowers in baggage at New York, New York.

A PYRAUSTID (Leucinodes sp., possibly L. orbonalis Guen., eggplant fruit borer of southeastern Asia and much of Africa) 4 times in tomato, hot pepper, eggplant and groundcherry in baggage at New York International Airport, New York.

A CECIDOMYIID SEED MIDGE (Plemeliella abietina Seitner) (a pest of certain conifers in Europe) in Picea seed in mail at Hoboken, New Jersey

A WEEVIL (Rhynchites sp.) (an economic genus) twice in Berberis seed in mail at District of Columbia Inspection House.

DURRA STEM BORER (Sesamia cretica Led.) 5 times; in mail at Buffalo, New York; in broomcorn cargo at Baltimore, Maryland; in New York, in baggage at New York International Airport, and at New York in cargo of brooms and in a broom in baggage.

WHITE GARDEN SNAIL (*Theba pisana* (Müller)) 3 times in general cargo and 1 time in baggage with oranges; 2 times each at Norfolk, Virginia, and New York, New York.

KHAPRA BEETLE (*Trogoderma granarium* Everts) (or probably that species) 49 times in stores,holds of ships and cargoes of celery seed, gum karaya and guar gum, tamarind seed powder, mangrove bark, myrobalans, cotton piece goods, black pepper, psyllium and fennel seeds and monkey feed; 3 times at Baltimore, Maryland; 1 time at Norfolk, Virginia; 1 time at Charleston, South Carolina; 4 times at Savannah, Georgia; 1 time at Wilmington, North Carolina; 2 times each at Houston and Corpus Christi, Texas; 3 times at Chicago, Illinois; 7 times at Philadelphia, Pennsylvania; 23 times at New York, New York; 1 time at Honolulu, Hawaii; and 1 time at New York International Airport, New York.

INSECTS NOT KNOWN TO OCCUR IN THE UNITED STATES

A FRUIT-TREE SPIDER MITE (Tetranychus viennensis Zacher)

Economic Importance: This tetranychid mite has become of conisderable importance on fruit trees in various areas of Europe since it was first described by Friedrich Zacher in 1920. It has been known to occur in parts of Western Europe for many years, but was only recently found to be present in Greece, Turkey and Japan. It was considered serious on plum, apricot and peach during 1959 in Turkey, and damage was severe on apple locally in Greece in 1960. Apparently, this species has become of greater importance in Europe as a result of the widespread application of modern insecticides in orchards for the control of other pests.

T. viennensis has been intercepted on several occasions at U.S. Ports of entry. From 1958 through 1963, the pest was taken 3 times in Hawaii; twice at Seattle, Washington; and once each at Wilmington, North Carolina; Miami, Florida; and New York, New York.

Hosts: Recorded on a number of hosts, including apple, pear, sweet and sour cherries, European birdcherry, quince, plum, peach, apricot, hawthorn, blackthorn and oak.

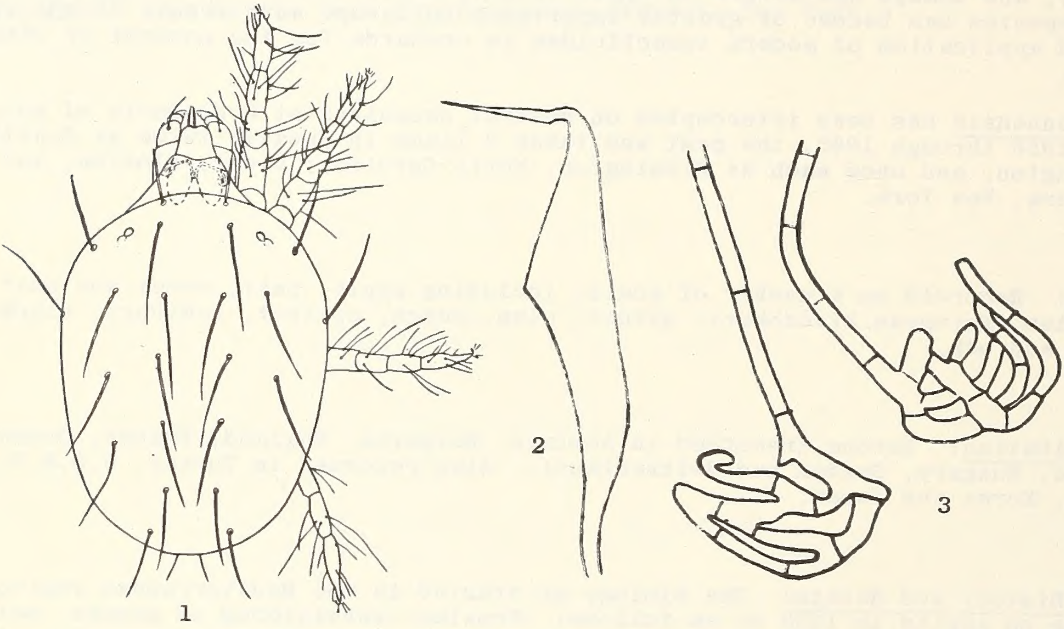
Distribution: Europe (recorded in Austria, Bulgaria, England, France, Germany, Greece, Hungary, Sweden and Switzerland). Also recorded in Turkey, U.S.S.R., China, Korea and Japan.

Life History and Habits: The biology as studied in the Mediterranean region of France on apples in 1953 is as follows: Females overwintered in groups, mainly in cracks in the bark or in the soil around the trees. They became active in the spring and dispersed to the young leaves. At Montpellier, they became active about March 25 and were found on all parts of the trees by April 7. They fed and oviposited on the lower surface of the outer leaves of the terminal buds. Natural mortality was high in the spring and increased still more in May and June owing to the activities of predators. However, large populations developed in the summer under the influences of high temperatures, long daylight hours, an abundance of mature leaves and the destruction of natural enemies by organic insecticides and acaricides. Maximum numbers were present in August and September, and the hibernating females were produced in early autumn and entered diapause in late September or early October when the critical photoperiod was 13 to 14 hours per day. The last males and eggs were seen in October. At Sapporo, Hokkaido, Japan, the mite was found to overwinter in the adult stage. Overwintered mites spend the winter much as they do in France and appear the next year on leaves of host trees from the end of May to the beginning of June. There are four or five generations a year in Hokkaido and an extra one at Kuroishi, Honshu, Japan.

Tetranychidae, Acarina

No. 155 of Series
CEIR 13(31):8-2-63

Description: FEMALE - This is a typical tetranychid mite, with the following exceptions. It is unique in having the distal ends of the peritreme anastomosing. Also, the dorsal striations are transverse on the posterior portion of the body as in Tetranychus pacificus. MALE - Aedeagus is bent sharply dorsad, and the distal knob is modified as a small anterior angulation near the base of the bent portion, with the caudal angulation very attenuated and tapering. (Prepared in Survey and Detection Operations in cooperation with other ARS agencies.)



Figures of Tetranychus viennensis Zacher: 1, Dorsal View of Female; 2, Aedeagus; 3 Peritreme.

Major references: 1. Ehara, S. 1956. J. Facul. Sci. Hokkaido Univ. Ser. VI. Zool. 12(3):252-254. 2. Pritchard, A. E. and Baker, E. W. 1955. A revision of the spider mite family Tetranychidae. pp. 384-385, San Francisco. 3. Rambier, A. 1954. Acad. d'Agr. de France Compt. Rend. 40(8):340-343. 4. Zacher, F. 1920. Z. f. Angewandte Ent. 7(1):186-187.

Figures: Female from Ehara; peritreme and aedeagus from Zacher.

UNITED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON 25, D. C.

Official Business

POSTAGE AND FEES PAID
U. S. DEPARTMENT OF AGRICULTURE